

**U.S.ENVIRONMENTAL PROTECTION AGENCY  
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY  
540 S. MORRIS AVE., MONTGOMERY, AL 36115  
U ANALYSES**

**REPORT OF SAMPLE DELIVERY GROUP #1600017**

Project: Canadian Radium & Uranium, Mt. Kisco, NY  
 Analysis method: Isotopic Uranium Using NaOH Fusion  
 Report ID: 1600017-U  
 Report type: Original  
 Date reported: 06/29/2016  
 Total pages in report: 29

**SAMPLES**

NAREL Sample #	Client Sample ID	Location	Matrix	Date Collected	Date Received
B6.04138J	C3-SB9-0012-01	NY:MT. KISCO	SOIL	04/05/2016	04/19/2016
B6.04139K	C3-SB9-1224-01	NY:MT. KISCO	SOIL	04/05/2016	04/19/2016
B6.04140C	C3-SB10-0012-01	NY:MT. KISCO	SOIL	04/05/2016	04/19/2016
B6.04141D	C3-SB10-1224-01	NY:MT. KISCO	SOIL	04/05/2016	04/19/2016
B6.04142E	C3-SB10-6072-01	NY:MT. KISCO	SOIL	04/05/2016	04/19/2016
B6.04143F	C3-SB10-7284-01	NY:MT. KISCO	SOIL	04/05/2016	04/19/2016
B6.04144G	C3-SB10-8496-01	NY:MT. KISCO	SOIL	04/05/2016	04/19/2016
B6.04145H	C3-SB11-0012-01	NY:MT. KISCO	SOIL	04/06/2016	04/19/2016
B6.04146J	C3-SB11-3648-01	NY:MT. KISCO	SOIL	04/06/2016	04/19/2016
B6.04147K	C3-SB12-0012-01	NY:MT. KISCO	SOIL	04/06/2016	04/19/2016
B6.04148L	C3-SB13-0012-01	NY:MT. KISCO	SOIL	04/06/2016	04/19/2016
B6.04149M	C3-SB13-1224-01	NY:MT. KISCO	SOIL	04/06/2016	04/19/2016
B6.04150E	C3-SB14-0012-01	NY:MT. KISCO	SOIL	04/06/2016	04/19/2016
B6.04151F	C3-SB15-0012-01	NY:MT. KISCO	SOIL	04/06/2016	04/19/2016
B6.04152G	C3-SB15-2436-01	NY:MT. KISCO	SOIL	04/06/2016	04/19/2016
B6.04153H	C3-SB16-0012-01	NY:MT. KISCO	SOIL	04/06/2016	04/19/2016
B6.04154J	C3-SB16-3648-01	NY:MT. KISCO	SOIL	04/06/2016	04/19/2016

**EXCEPTIONS**

1. **Packaging and shipping** – No problems were observed.
2. **Documentation** – No problems were observed.
3. **Sample preparation** – No problems were encountered.
4. **Analysis** – No problems were encountered.
5. **Holding times** – No holding times were specified.

**QUALITY CONTROL**

1. **QC samples** – All QC analysis results met NAREL acceptance criteria.
2. **Yields** – All chemical yields were within acceptance limits.
3. **Instruments** – Response and background checks for all instruments used in these analyses met NAREL acceptance criteria.

## ACCREDITATION



All analyses included in this data package are accredited by the Oregon Environmental Laboratory Accreditation Program (ORELAP) to the TNI standard.

## CERTIFICATION

I certify that this data report complies with the terms and conditions of the Project Acceptance Form and/or the Quality Assurance Project Plan, except as noted above. Release of the data contained in this report has been authorized by the Director of the Center for Environmental Radioanalytical Laboratory Science and the NAREL Quality Assurance Manager, or their designees, as verified by the following signatures.

A handwritten signature in black ink.

Velinda Herbert  
Quality Assurance Manager, NAREL

A handwritten date in black ink.

Date

A handwritten signature in black ink.

Cynthia White  
Director, Center for Environmental Radioanalytical  
Laboratory Science

A handwritten date in black ink.

Date

## GENERAL INFORMATION

### SAMPLE TYPES

BLD	Blind sample
FBK	Field blank
SAM	Normal sample

### ANALYSIS QC TYPES

ANA	Normal analysis
DUP	Laboratory duplicate
LCS	Laboratory control sample, or blank spike
MS	Matrix spike
MSD	Matrix spike duplicate (not currently analyzed)
RBK	Method blank
STD	External standard (used for $^{228}\text{Ra}$ yield determination)

### QUALITY INDICATORS

RPD	Relative Percent Difference
%R	Percent Recovery
Z	Number of standard deviations by which a QC measurement differs from the expected value

### RADIOCHEMICAL DATA

Radiochemical analyses usually require the subtraction of an instrument background measurement result from a gross sample measurement result. Both values are positive, but when the sample activity is low, random variations in the two measurements can cause the gross value to be less than the background, resulting in a measured activity less than zero. Although negative activities have no physical significance, they do have statistical importance, as for example in the evaluation of trends or the comparison of two groups of samples.

To the extent practical, it is the policy of NAREL to report results as generated, whether positive, negative, or zero, together with the "2-sigma" measurement uncertainty and a sample-specific estimate of the minimum detectable concentration (MDC). The measurement result, uncertainty, and MDC are always expressed in the same unit of measurement.

### EVALUATION OF QC ANALYSES

A method blank result is considered unacceptable if it is more than 3 standard deviations below zero or more than 3 standard deviations above a predetermined upper control limit. For some analyses NAREL has set the upper control limit at zero. For others the control limit is a small positive number.

NAREL evaluates the results of duplicate and spike analyses using "Z scores." A Z score is the number of standard deviations by which the QC result differs from its ideal value. Generally the score is considered acceptable if its absolute value is not greater than 3.

The Z score for a spiked sample is computed by dividing the difference between the measured value and the target value by the combined standard uncertainty of the difference. The Z score for a duplicate analysis is computed by dividing the difference between the two measured values by the combined standard uncertainty of the difference.

NAREL reports the "relative percent difference," or RPD, between duplicate results and the "percent recovery," or %R, for spiked analyses, but does not use these values for evaluation of most analyses. An exception is the use of %R in the evaluation of gross alpha matrix spike results. A gross alpha matrix spike result is considered acceptable if either  $|Z| \leq 3$  or  $60 \leq \%R \leq 110$ .

USEPA

Date Shipped: 4/18/2016  
 Carrier Name: FedEx  
 Airbill No: 8322 3572 1333

**CHAIN OF CUSTODY RECORD**  
 Canadian Radium & Uranium Corp/NY  
 Contact Name: Bernard Nwosu  
 Contact Phone: (908) 565-2980

No: 2-041816-105138-0008  
 Lab: NAREL  
 Lab Contact: Tonya Hudson  
 Lab Phone: (343) 270-3433

Lab #	Sample #	Sample Date	Sample Time	Analyses	Matrix	Preservative	Lab QC	Container
	C003-SB007-2436-02	4/5/2016	16:23	Gamma, Spec. Modified ✓	Soil	4 C	N	1 US oz. glass jar
	C003-SB007-3548-01	4/5/2016	16:23	Isotopic Thorium ✓	Soil	4 C	N	1 8 oz. glass jar
	C003-SB007-3648-01 ✓	4/5/2016	16:23	Isotopic Uranium ✓	Soil	4 C	N	1 8 oz. glass jar ✓
3	C003-SB008-0012-01 ✓	4/5/2016	16:58 ✓	Gamma, Spec. Modified ✓	Soil	4 C	N	1 16 oz. glass jar ✓
3	C003-SB008-0012-01 ✓	4/5/2016	16:58 ✓	Isotopic Thorium ✓	Soil	4 C	N	1 8 oz. glass jar ✓
3	C003-SB008-1224-01 ✓	4/5/2016	16:59 ✓	Isotopic Uranium ✓	Soil	4 C	Y	✓ 16 oz. glass jar ✓
3	C003-SB008-1224-01 ✓	4/5/2016	16:59 ✓	Gamma, Spec. Modified ✓	Soil	4 C	Y	✓ 8 oz. glass jar ✓
3	C003-SB008-1224-01 ✓	4/5/2016	16:59 ✓	Isotopic Thorium ✓	Soil	4 C	N	✓ 8 oz. glass jar ✓
3	C003-SB009-0012-01	4/5/2016	18:02	Isotopic Uranium ✓	Soil	4 C	N	1 16 oz. glass jar ✓
3	C003-SB009-0012-01	4/5/2016	18:02	Gamma, Spec. Modified ✓	Soil	4 C	N	1 8 oz. glass jar
3	C003-SB009-0012-01	4/5/2016	18:02	Isotopic Thorium ✓	Soil	4 C	N	1 16 oz. glass jar
3	C003-SB009-1224-01	4/5/2016	18:02	Isotopic Uranium ✓	Soil	4 C	N	1 8 oz. glass jar
3	C003-SB009-1224-01	4/5/2016	18:02	Gamma, Spec. Modified ✓	Soil	4 C	N	1 8 oz. glass jar
3	C003-SB010-0012-01 ✓	4/5/2016	15:52 ✓	Isotopic Thorium ✓	Soil	4 C	N	1 16 oz. glass jar ✓
3	C003-SB010-0012-01 ✓	4/5/2016	15:52 ✓	Isotopic Uranium ✓	Soil	4 C	N	1 8 oz. glass jar ✓
3	C003-SB010-0012-01 ✓	4/5/2016	15:52 ✓	Gamma, Spec. Modified ✓	Soil	4 C	N	1 16 oz. glass jar ✓

Special Instructions: Sample Analysis PO#-0081196: Gamma Spectroscopy analysis for soil samples to include: Ra-226 (in-growth), Ra-228, K-40, Th-232, Ba-212, Pb-212, Pb-214, Ra-226, Ra-228, Th-234, U-235, Pb-210. Email results to s.sumbaly@westonsolutions.com and bern.nwosu@westonsolutions.com				SAMPLES TRANSFERRED FROM CHAIN OF CUSTODY #			
Item/Reason	Retirnguished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Condition Upon Receipt	Date/Time	Sample Condition Upon Receipt
	Bernard Nwosu	4/5/16 2573	John Nwosu	4/5/16 2514	Good	8:45 AM	Good

USEPA  
Date Shipped: 4/18/2016  
Carrier Name: FedEx  
Airtel No: 8022 3572 1393

**CHAIN OF CUSTODY RECORD**  
Canadian Radium & Uranium Company  
Contact Name: Bernard Navous  
Contact Phone: (908) 565-2980

No. 2-041816-105138-0008  
Lab: NARL  
Lab Contact: Tanya Hudson  
Lab Phone: (343) 270-3433

Lab #	Sample #	Sample Date	Sample Time	Analyses	Matrix	Preservative	Lab QC	Numb Cont	Container
3	C003-SB010-1224-01 ✓	4/5/2016	15:52 ✓	Isotopic Thorium ✓	Soil	4C	N	1	8 oz glass jar ✓
3	C003-SB010-1224-01 ✓	4/5/2016	15:52 ✓	Isotopic Uranium ✓	Soil	4C	N	1	8 oz glass jar ✓
3	C003-SB010-1224-01 ✓	4/5/2016	15:52 ✓	Gamma Spec (Modified) ✓	Soil	4C	N	1	16 oz glass jar ✓
3	C003-SB010-6072-01 ✓	4/5/2016	15:52 ✓	Isotopic Thorium ✓✓	Soil	4C	N	1	8 oz glass jar ✓
3	C003-SB010-6072-01 ✓	4/5/2016	15:52 ✓	Isotopic Uranium ✓✓	Soil	4C	N	1	8 oz glass jar ✓
3	C003-SB010-6072-01 ✓	4/5/2016	15:52 ✓	Gamma Spec (Modified) ✓✓	Soil	4C	N	1	16 oz glass jar ✓
3	C003-SB010-7284-01 ✓	4/5/2016	15:52 ✓	Isotopic Thorium ✓✓	Soil	4C	N	1	8 oz glass jar ✓
3	C003-SB010-7284-01 ✓	4/5/2016	15:52 ✓	Isotopic Uranium ✓✓	Soil	4C	N	1	8 oz glass jar ✓
3	C003-SB010-8486-01 ✓	4/5/2016	15:52 ✓	Gamma Spec (Modified) ✓✓	Soil	4C	N	1	16 oz glass jar ✓
3	C003-SB010-8486-01 ✓	4/5/2016	15:52 ✓	Isotopic Thorium ✓✓	Soil	4C	N	1	8 oz glass jar ✓
3	C003-SB010-8486-01 ✓	4/5/2016	15:52 ✓	Isotopic Uranium ✓✓	Soil	4C	N	1	8 oz glass jar ✓
4	C003-SB011-0012-01 ✓	4/6/2016	11:13	Isotopic Thorium ✓✓	Soil	4C	N	1	8 oz glass jar ✓
4	C003-SB011-0012-01 ✓	4/6/2016	11:13	Isotopic Uranium ✓✓	Soil	4C	N	1	8 oz glass jar ✓
4	C003-SB011-0012-01 ✓	4/6/2016	11:13	Gamma Spec (Modified) ✓✓	Soil	4C	N	1	16 oz glass jar ✓
4	C003-SB011-3648-01 ✓	4/6/2016	11:13	Isotopic Thorium ✓✓	Soil	4C	N	1	8 oz glass jar ✓
4	C003-SB011-3648-01 ✓	4/6/2016	11:13	Isotopic Uranium ✓✓	Soil	4C	N	1	8 oz glass jar ✓
4	C003-SB011-3648-01 ✓	4/6/2016	11:13	Gamma Spec (Modified) ✓✓	Soil	4C	N	1	16 oz glass jar ✓
3	C003-SB012-0012-01 ✓	4/6/2016	11:35 ✓	Isotopic Thorium ✓✓	Soil	4C	N	1	8 oz glass jar ✓

Special Instructions: Sample Analysis: PO# 0091198: Gamma Spectroscopy analysis for soil samples to include: Ra-226 (in-growth), Ra-228, K-40, Th-232, Bi-214, Pb-212, Po-214, Ra-226, Ra-228, Th-234, U-235, Pb-210, Bi-210. Email results to s.sumikay@westonsolutions.com and ben.nwosa@westonsolutions.com

Items/Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	Bernard Navous EST3	4/18/16 11:15	John NARL	4/18/16 11:15	Good (0 broken jar)

SAMPLES TRANSFERRED FROM  
CHAIN OF CUSTODY \*

22

DateShipped: 4/18/2016  
CarrierName: FedEx  
AirbillNo: 80922 25772 133

CHAINS OF CREDITIBILITY

Canadian Radium & Uranium Corp. 11

Contact Name: [Bennard Abusow](#)

CEC 1998/National Seminar

Contact phone: (908) 565-2330

No: 2-041816-105138-0008  
Lab: NAREL  
Lab Contact: Tonya Hudson  
Lab Phone: (412) 927-3430

Lab #	Sample #	Sample Date	Sample Time	Analyses	Matrix	Preservative	Lab QC	Numb Cont	Container
✓ ✓ ✓	C003-SB012-0012-01 ✓	4/6/2016	11:35 ✓	Isotopic Uranium ✓	Soil	4 C	N	1	8 oz glass jar ✓
✓ ✓ ✓	C003-SB012-0012-01 ✓	4/6/2016	11:35 ✓	Gamma Spec (Modified) ✓	Soil	4 C	N	1	16 oz glass jar ✓
✓ ✓ ✓	C003-SB013-0012-01 ✓	4/6/2016	12:00	Isotopic Thorium ✗	Soil	4 C	N	1	8 oz glass jar ✓
✓ ✓ ✓	C003-SB013-0012-01 ✓	4/6/2016	12:00	Isotopic Uranium ✓	Soil	4 C	N	1	8 oz glass jar ✓
✓ ✓ ✓	C003-SB013-0012-01 ✓	4/6/2016	12:00	Gamma Spec (Modified) ✓	Soil	4 C	N	1	8 oz glass jar ✓
✓ ✓ ✓	C003-SB013-1224-01	4/6/2016	12:01	Isotopic Thorium ✓	Soil	4 C	N	1	8 oz glass jar ✓
✓ ✓ ✓	C003-SB013-1224-01	4/6/2016	12:01	Isotopic Uranium ✓	Soil	4 C	N	1	8 oz glass jar ✓
✓ ✓ ✓	C003-SB013-1224-01	4/6/2016	12:01	Gamma Spec (Modified)	Soil	4 C	N	1	16 oz glass jar ✓
✓ ✓ ✓	C003-SB014-0012-01 ✓	4/6/2016	12:28	Isotopic Thorium ✓ ✓	Soil	4 C	N	1	8 oz glass jar ✓
✓ ✓ ✓	C003-SB014-0012-01 ✓	4/6/2016	12:28	Isotopic Uranium ✓	Soil	4 C	N	1	8 oz glass jar ✓
✓ ✓ ✓	C003-SB014-0012-01 ✓	4/6/2016	12:28	Gamma Spec (Modified) ✓	Soil	4 C	N	1	16 oz glass jar ✓
✓ ✓ ✓	C003-SB015-0012-01 ✓	4/6/2016	16:43 ✓	Isotopic Thorium ✓	Soil	4 C	N	1	8 oz glass jar ✓
✓ ✓ ✓	C003-SB015-0012-01 ✓	4/6/2016	16:43 ✓	Isotopic Uranium ✓	Soil	4 C	N	1	8 oz glass jar ✓
✓ ✓ ✓	C003-SB015-0012-01 ✓	4/6/2016	16:43 ✓	Gamma Spec (Modified) ✓	Soil	4 C	N	1	16 oz glass jar ✓
✓ ✓ ✓	C003-SB015-0012-01 ✓	4/6/2016	16:43 ✓	Isotopic Thorium ✓	Soil	4 C	N	1	8 oz glass jar ✓
✓ ✓ ✓	C003-SB015-0012-01 ✓	4/6/2016	16:43 ✓	Isotopic Uranium ✗	Soil	4 C	N	1	8 oz glass jar ✓
✓ ✓ ✓	C003-SB015-0012-01 ✓	4/6/2016	16:43 ✓	Gamma Spec (Modified) ✓	Soil	4 C	N	1	16 oz glass jar ✓
✓ ✓ ✓	C003-SB016-0012-01	4/6/2016	08:35	Isotopic Thorium ✓	Soil	4 C	N	1	8 oz glass jar ✓
✓ ✓ ✓	C003-SB016-0012-01	4/6/2016	08:35	Isotopic Uranium ✓	Soil	4 C	N	1	8 oz glass jar ✓

**Special Instructions:** Sample Analysis PGS-001918: Gamma Spectroscopy analysis for soil samples to include Ra-226 (In-situ), Ra-228, K-40, Tl-204, Bi-212, Bi-207, Pb-214, Ra-228, Ra-228, Th-234, U-235, Pb-210, Sr-210. Email results to sunburnt@westonsolutions.com, and bennw@westonsolutions.com

SAMPLES TRANSFERRED FROM			
CHAIN OF CUSTODY #			
Item/Reason	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
Special Instructions: Sample Analysis PO#-009198: Gamma Spectroscopy analysis for soil samples to include: Ra-226 (In-growth), Ra-228, K-40, Th-228, Bi-210, Bi-214, Pb-212, Pb-214, Pb-210. Email results to s.sumbaly@westonsolutions.com and benn.hwcs@westonsolutions.com	Bernard Schum EST3	09/04/14 11:55	Good 2014/09/04 Custod.

USEPA  
DateShipped: 4/18/2018  
CarrierName: FedEx  
Attn: BLO 8022 3572 1333

CHINESE CLASSICAL

Canadian Radium & Uranium Company  
Contact Name: Bernard Nivesu  
Contact phone: (604) 555-2000

No: 2-0411816-105138-0008  
Lab: NAREL  
Lab Contact: Tonya Hudson  
Lab Phone: (343) 270-3433

Sample #	Sample Date	Sample Time	Analyses	Matrix	Preservative	Lab QC	Numb Cost	Container
C003-SB0116-0012-01 ✓	4/6/2016	08:35	Gamma Spec (Modified) ✓	Soil	4 C	N	1	16 oz glass jar
C003-SB0116-3848-01 ✓	4/6/2016	08:36	Isotopic Thorium ✓	Soil	4 C	N	1	8 oz glass jar
C003-SB0116-3848-01 ✓	4/6/2016	08:36	Isotopic Uranium ✓	Soil	4 C	N	1	8 oz glass jar
C003-SB0116-3848-01 ✓	4/6/2016	08:36	Gamma Spec (Modified) ✓	Soil	4 C	N	1	16 oz glass jar

Special Instructions: Sample Analysis ID#-00911986. Gamma Spectroscopy analysis for soil samples to include: Ra-226 (in ground), Ra-228, K-40, Th-232, Pb-214, Pb-212, Pb-210, U-234, U-235, Pb-210, Bi-210. Email results to s.schmitz@westernsoils.com or m.norris@westernsoils.com

Item's Reason	Reinstituted by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Condition Upon Receipt
Resend from 2573	John Nafis City Clerk	10/14/04	John Nafis City Clerk	10/14/04	Good

**U.S. ENVIRONMENTAL PROTECTION AGENCY  
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

**SDG #1600017**

**ANALYSIS SUMMARY**

Analysis method: NAREL ACT-02F-U  
 Title: Isotopic Uranium Using NaOH Fusion

NAREL Sample #	Client Sample ID	QC Type	Date Completed	Preparation Batch #	Assay Batch #
B6.04138J	C3-SB9-0012-01		06/23/2016	0013481Q	0020965J
B6.04139K	C3-SB9-1224-01		06/23/2016	0013481Q	0020965J
B6.04140C	C3-SB10-0012-01		06/23/2016	0013481Q	0020965J
B6.04141D	C3-SB10-1224-01		06/23/2016	0013481Q	0020965J
B6.04142E	C3-SB10-6072-01		06/23/2016	0013481Q	0020965J
B6.04142E	C3-SB10-6072-01	DUP	06/23/2016	0013481Q	0020965J
B6.04143F	C3-SB10-7284-01		06/23/2016	0013481Q	0020965J
B6.04144G	C3-SB10-8496-01		06/23/2016	0013481Q	0020965J
B6.04145H	C3-SB11-0012-01		06/24/2016	0013481Q	0020967L
B6.04146J	C3-SB11-3648-01		06/24/2016	0013481Q	0020967L
B6.04147K	C3-SB12-0012-01		06/24/2016	0013481Q	0020967L
B6.04148L	C3-SB13-0012-01		06/24/2016	0013481Q	0020967L
B6.04149M	C3-SB13-1224-01		06/24/2016	0013481Q	0020967L
B6.04150E	C3-SB14-0012-01		06/24/2016	0013481Q	0020967L
B6.04151F	C3-SB15-0012-01		06/24/2016	0013481Q	0020967L
B6.04152G	C3-SB15-2436-01		06/24/2016	0013481Q	0020967L
B6.04153H	C3-SB16-0012-01		06/24/2016	0013481Q	0020967L
B6.04154J	C3-SB16-3648-01		06/24/2016	0013481Q	0020967L
LCS-00736021U *		LCS	06/23/2016	0013481Q	0020965J
RBK-00736020T *		RBK	06/23/2016	0013481Q	0020965J

\* Samples marked with an asterisk are not in this sample delivery group but were analyzed with it for QC purposes.

**U.S. ENVIRONMENTAL PROTECTION AGENCY  
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

**SDG #1600017**

**SAMPLE ANALYSIS REPORT**

Lab sample #:	B6.04138J	Amount analyzed:	7.983e-01 GASH
Client sample ID:	C3-SB9-0012-01	Preparation batch #:	0013481Q
Matrix:	SOIL	Assay batch #:	0020965J
Collected:	2016-04-05 18:02 EDT	Prep procedure:	N/A
Sample type:	SAM	Analysis method:	NAREL ACT-02F-U
Dry/wet weight:	96.88 %	Analyst:	SPK
Ash/dry weight:	93.31 %	QC type:	ANA
Sample description:	N/A		
Comment:	N/A		

**COUNTING INFORMATION**

Date and time	Duration (min)	Detector ID	Operator
06/22/2016 17:05	1000.0	AS80	RCL

**ANALYTICAL RESULTS**

Analyte	Activity	$\pm 2 \sigma$ Uncertainty	MDC	Unit	Reference Date
U234	3.73e-01	8.5e-02	2.9e-02	PCI/GDRY	06/22/2016 17:05 CDT
U235	2.17e-02	2.3e-02	2.9e-02	PCI/GDRY	06/22/2016 17:05 CDT
U238	3.71e-01	8.5e-02	2.7e-02	PCI/GDRY	06/22/2016 17:05 CDT

**U.S. ENVIRONMENTAL PROTECTION AGENCY  
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

**SDG #1600017**

**SAMPLE ANALYSIS REPORT**

Lab sample #:	B6.04139K	Amount analyzed:	1.004e+00 GASH
Client sample ID:	C3-SB9-1224-01	Preparation batch #:	0013481Q
Matrix:	SOIL	Assay batch #:	0020965J
Collected:	2016-04-05 18:02 EDT	Prep procedure:	N/A
Sample type:	SAM	Analysis method:	NAREL ACT-02F-U
Dry/wet weight:	94.08 %	Analyst:	SPK
Ash/dry weight:	96.64 %	QC type:	ANA
Sample description:	N/A		
Comment:	N/A		

**COUNTING INFORMATION**

Date and time	Duration (min)	Detector ID	Operator
06/22/2016 17:06	1000.0	AS113	RCL

**ANALYTICAL RESULTS**

Analyte	Activity	$\pm 2 \sigma$ Uncertainty	MDC	Unit	Reference Date
U234	4.62e-01	8.2e-02	2.0e-02	PCI/GDRY	06/22/2016 17:06 CDT
U235	1.81e-02	1.7e-02	2.0e-02	PCI/GDRY	06/22/2016 17:06 CDT
U238	5.37e-01	9.0e-02	1.3e-02	PCI/GDRY	06/22/2016 17:06 CDT

**U.S. ENVIRONMENTAL PROTECTION AGENCY  
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

**SDG #1600017**

**SAMPLE ANALYSIS REPORT**

Lab sample #:	B6.04140C	Amount analyzed:	1.009e+00 GASH
Client sample ID:	C3-SB10-0012-01	Preparation batch #:	0013481Q
Matrix:	SOIL	Assay batch #:	0020965J
Collected:	2016-04-05 15:52 EDT	Prep procedure:	N/A
Sample type:	SAM	Analysis method:	NAREL ACT-02F-U
Dry/wet weight:	97.86 %	Analyst:	SPK
Ash/dry weight:	92.49 %	QC type:	ANA
Sample description:	N/A		
Comment:	N/A		

**COUNTING INFORMATION**

Date and time	Duration (min)	Detector ID	Operator
06/22/2016 17:06	1000.0	AS115	RCL

**ANALYTICAL RESULTS**

Analyte	Activity	$\pm 2 \sigma$ Uncertainty	MDC	Unit	Reference Date
U234	3.92e-01	7.2e-02	1.5e-02	PCI/GDRY	06/22/2016 17:06 CDT
U235	1.28e-02	1.5e-02	2.1e-02	PCI/GDRY	06/22/2016 17:06 CDT
U238	4.94e-01	8.3e-02	1.5e-02	PCI/GDRY	06/22/2016 17:06 CDT

**U.S. ENVIRONMENTAL PROTECTION AGENCY  
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

**SDG #1600017**

**SAMPLE ANALYSIS REPORT**

Lab sample #:	B6.04141D	Amount analyzed:	1.012e+00 GASH
Client sample ID:	C3-SB10-1224-01	Preparation batch #:	0013481Q
Matrix:	SOIL	Assay batch #:	0020965J
Collected:	2016-04-05 15:52 EDT	Prep procedure:	N/A
Sample type:	SAM	Analysis method:	NAREL ACT-02F-U
Dry/wet weight:	91.93 %	Analyst:	SPK
Ash/dry weight:	92.48 %	QC type:	ANA
Sample description:	N/A		
Comment:	N/A		

**COUNTING INFORMATION**

Date and time	Duration (min)	Detector ID	Operator
06/22/2016 17:06	1000.0	AS116	RCL

**ANALYTICAL RESULTS**

Analyte	Activity	$\pm 2 \sigma$ Uncertainty	MDC	Unit	Reference Date
U234	6.30e-01	9.9e-02	1.8e-02	PCI/GDRY	06/22/2016 17:06 CDT
U235	3.85e-02	2.4e-02	1.9e-02	PCI/GDRY	06/22/2016 17:06 CDT
U238	7.15e-01	1.1e-01	1.6e-02	PCI/GDRY	06/22/2016 17:06 CDT

**U.S. ENVIRONMENTAL PROTECTION AGENCY  
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

**SDG #1600017**

**SAMPLE ANALYSIS REPORT**

Lab sample #:	B6.04142E	Amount analyzed:	1.013e+00 GASH
Client sample ID:	C3-SB10-6072-01	Preparation batch #:	0013481Q
Matrix:	SOIL	Assay batch #:	0020965J
Collected:	2016-04-05 15:52 EDT	Prep procedure:	N/A
Sample type:	SAM	Analysis method:	NAREL ACT-02F-U
Dry/wet weight:	80.93 %	Analyst:	SPK
Ash/dry weight:	88.93 %	QC type:	ANA
Sample description:	N/A		
Comment:	N/A		

**COUNTING INFORMATION**

Date and time	Duration (min)	Detector ID	Operator
06/22/2016 17:06	1000.0	AS117	RCL

**ANALYTICAL RESULTS**

Analyte	Activity	$\pm 2\sigma$ Uncertainty	MDC	Unit	Reference Date
U234	1.34e+00	1.7e-01	2.0e-02	PCI/GDRY	06/22/2016 17:06 CDT
U235	7.06e-02	3.2e-02	1.9e-02	PCI/GDRY	06/22/2016 17:06 CDT
U238	1.35e+00	1.7e-01	1.6e-02	PCI/GDRY	06/22/2016 17:06 CDT

**U.S. ENVIRONMENTAL PROTECTION AGENCY  
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

**SDG #1600017**

**SAMPLE ANALYSIS REPORT**

Lab sample #:	B6.04142E	Amount analyzed:	1.007e+00 GASH
Client sample ID:	C3-SB10-6072-01	Preparation batch #:	0013481Q
Matrix:	SOIL	Assay batch #:	0020965J
Collected:	2016-04-05 15:52 EDT	Prep procedure:	N/A
Sample type:	SAM	Analysis method:	NAREL ACT-02F-U
Dry/wet weight:	80.93 %	Analyst:	SPK
Ash/dry weight:	88.93 %	QC type:	DUP
Sample description:	N/A		
Comment:	N/A		

**COUNTING INFORMATION**

Date and time	Duration (min)	Detector ID	Operator
06/22/2016 17:06	1000.0	AS118	RCL

**ANALYTICAL RESULTS**

Analyte	Activity	$\pm 2 \sigma$ Uncertainty	MDC	Unit	Reference Date
U234	1.38e+00	1.7e-01	1.9e-02	PCI/GDRY	06/22/2016 17:06 CDT
U235	5.48e-02	2.8e-02	1.5e-02	PCI/GDRY	06/22/2016 17:06 CDT
U238	1.33e+00	1.7e-01	1.6e-02	PCI/GDRY	06/22/2016 17:06 CDT

**U.S. ENVIRONMENTAL PROTECTION AGENCY  
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

**SDG #1600017**

**SAMPLE ANALYSIS REPORT**

Lab sample #:	B6.04143F	Amount analyzed:	9.732e-01 GASH
Client sample ID:	C3-SB10-7284-01	Preparation batch #:	0013481Q
Matrix:	SOIL	Assay batch #:	0020965J
Collected:	2016-04-05 15:52 EDT	Prep procedure:	N/A
Sample type:	SAM	Analysis method:	NAREL ACT-02F-U
Dry/wet weight:	64.74 %	Analyst:	SPK
Ash/dry weight:	77.25 %	QC type:	ANA
Sample description:	N/A		
Comment:	N/A		

**COUNTING INFORMATION**

Date and time	Duration (min)	Detector ID	Operator
06/22/2016 17:06	1000.0	AS119	RCL

**ANALYTICAL RESULTS**

Analyte	Activity	$\pm 2 \sigma$ Uncertainty	MDC	Unit	Reference Date
U234	1.74e+00	2.1e-01	2.0e-02	PCI/GDRY	06/22/2016 17:06 CDT
U235	8.15e-02	3.3e-02	1.7e-02	PCI/GDRY	06/22/2016 17:06 CDT
U238	1.85e+00	2.2e-01	1.6e-02	PCI/GDRY	06/22/2016 17:06 CDT

**U.S. ENVIRONMENTAL PROTECTION AGENCY  
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

**SDG #1600017**

**SAMPLE ANALYSIS REPORT**

Lab sample #:	B6.04144G	Amount analyzed:	9.936e-01 GASH
Client sample ID:	C3-SB10-8496-01	Preparation batch #:	0013481Q
Matrix:	SOIL	Assay batch #:	0020965J
Collected:	2016-04-05 15:52 EDT	Prep procedure:	N/A
Sample type:	SAM	Analysis method:	NAREL ACT-02F-U
Dry/wet weight:	71.62 %	Analyst:	SPK
Ash/dry weight:	92.51 %	QC type:	ANA
Sample description:	N/A		
Comment:	N/A		

**COUNTING INFORMATION**

Date and time	Duration (min)	Detector ID	Operator
06/22/2016 17:05	1000.0	AS120	RCL

**ANALYTICAL RESULTS**

Analyte	Activity	$\pm 2 \sigma$ Uncertainty	MDC	Unit	Reference Date
U234	1.41e+00	1.8e-01	1.7e-02	PCI/GDRY	06/22/2016 17:05 CDT
U235	7.80e-02	3.5e-02	2.0e-02	PCI/GDRY	06/22/2016 17:05 CDT
U238	1.44e+00	1.8e-01	1.4e-02	PCI/GDRY	06/22/2016 17:05 CDT

**U.S. ENVIRONMENTAL PROTECTION AGENCY  
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

**SDG #1600017**

**SAMPLE ANALYSIS REPORT**

Lab sample #:	B6.04145H	Amount analyzed:	9.616e-01 GASH
Client sample ID:	C3-SB11-0012-01	Preparation batch #:	0013481Q
Matrix:	SOIL	Assay batch #:	0020967L
Collected:	2016-04-06 11:13 EDT	Prep procedure:	N/A
Sample type:	SAM	Analysis method:	NAREL ACT-02F-U
Dry/wet weight:	96.90 %	Analyst:	SPK
Ash/dry weight:	94.29 %	QC type:	ANA
Sample description:	N/A		
Comment:	N/A		

**COUNTING INFORMATION**

Date and time	Duration (min)	Detector ID	Operator
06/23/2016 16:17	1000.0	AS33	RCL

**ANALYTICAL RESULTS**

Analyte	Activity	$\pm 2 \sigma$ Uncertainty	MDC	Unit	Reference Date
U234	8.44e-01	1.4e-01	2.4e-02	PCI/GDRY	06/23/2016 16:17 CDT
U235	2.16e-02	2.3e-02	2.9e-02	PCI/GDRY	06/23/2016 16:17 CDT
U238	8.11e-01	1.4e-01	2.9e-02	PCI/GDRY	06/23/2016 16:17 CDT

**U.S. ENVIRONMENTAL PROTECTION AGENCY  
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

**SDG #1600017**

**SAMPLE ANALYSIS REPORT**

Lab sample #:	B6.04146J	Amount analyzed:	1.007e+00 GASH
Client sample ID:	C3-SB11-3648-01	Preparation batch #:	0013481Q
Matrix:	SOIL	Assay batch #:	0020967L
Collected:	2016-04-06 11:13 EDT	Prep procedure:	N/A
Sample type:	SAM	Analysis method:	NAREL ACT-02F-U
Dry/wet weight:	87.49 %	Analyst:	SPK
Ash/dry weight:	97.41 %	QC type:	ANA
Sample description:	N/A		
Comment:	N/A		

**COUNTING INFORMATION**

Date and time	Duration (min)	Detector ID	Operator
06/23/2016 16:17	1000.0	AS34	RCL

**ANALYTICAL RESULTS**

Analyte	Activity	$\pm 2 \sigma$ Uncertainty	MDC	Unit	Reference Date
U234	4.83e-01	1.1e-01	2.9e-02	PCI/GDRY	06/23/2016 16:17 CDT
U235	3.35e-02	3.0e-02	2.8e-02	PCI/GDRY	06/23/2016 16:17 CDT
U238	4.85e-01	1.1e-01	3.5e-02	PCI/GDRY	06/23/2016 16:17 CDT

**U.S. ENVIRONMENTAL PROTECTION AGENCY  
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

**SDG #1600017**

**SAMPLE ANALYSIS REPORT**

Lab sample #:	B6.04147K	Amount analyzed:	1.018e+00 GASH
Client sample ID:	C3-SB12-0012-01	Preparation batch #:	0013481Q
Matrix:	SOIL	Assay batch #:	0020967L
Collected:	2016-04-06 11:35 EDT	Prep procedure:	N/A
Sample type:	SAM	Analysis method:	NAREL ACT-02F-U
Dry/wet weight:	98.86 %	Analyst:	SPK
Ash/dry weight:	80.06 %	QC type:	ANA
Sample description:	N/A		
Comment:	N/A		

**COUNTING INFORMATION**

Date and time	Duration (min)	Detector ID	Operator
06/23/2016 16:17	1000.0	AS36	RCL

**ANALYTICAL RESULTS**

Analyte	Activity	$\pm 2\sigma$ Uncertainty	MDC	Unit	Reference Date
U234	3.72e-01	7.2e-02	1.8e-02	PCI/GDRY	06/23/2016 16:17 CDT
U235	1.02e-02	1.4e-02	2.1e-02	PCI/GDRY	06/23/2016 16:17 CDT
U238	3.43e-01	6.8e-02	1.3e-02	PCI/GDRY	06/23/2016 16:17 CDT

**U.S. ENVIRONMENTAL PROTECTION AGENCY  
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

**SDG #1600017**

**SAMPLE ANALYSIS REPORT**

Lab sample #:	B6.04148L	Amount analyzed:	1.004e+00 GASH
Client sample ID:	C3-SB13-0012-01	Preparation batch #:	0013481Q
Matrix:	SOIL	Assay batch #:	0020967L
Collected:	2016-04-06 12:00 EDT	Prep procedure:	N/A
Sample type:	SAM	Analysis method:	NAREL ACT-02F-U
Dry/wet weight:	99.04 %	Analyst:	SPK
Ash/dry weight:	83.55 %	QC type:	ANA
Sample description:	N/A		
Comment:	N/A		

**COUNTING INFORMATION**

Date and time	Duration (min)	Detector ID	Operator
06/23/2016 16:17	1000.0	AS37	RCL

**ANALYTICAL RESULTS**

Analyte	Activity	$\pm 2 \sigma$ Uncertainty	MDC	Unit	Reference Date
U234	4.14e-01	9.5e-02	2.6e-02	PCI/GDRY	06/23/2016 16:17 CDT
U235	2.82e-02	2.7e-02	3.1e-02	PCI/GDRY	06/23/2016 16:17 CDT
U238	4.13e-01	9.5e-02	2.9e-02	PCI/GDRY	06/23/2016 16:17 CDT

**U.S. ENVIRONMENTAL PROTECTION AGENCY  
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

**SDG #1600017**

**SAMPLE ANALYSIS REPORT**

Lab sample #:	B6.04149M	Amount analyzed:	1.031e+00 GASH
Client sample ID:	C3-SB13-1224-01	Preparation batch #:	0013481Q
Matrix:	SOIL	Assay batch #:	0020967L
Collected:	2016-04-06 12:01 EDT	Prep procedure:	N/A
Sample type:	SAM	Analysis method:	NAREL ACT-02F-U
Dry/wet weight:	93.44 %	Analyst:	SPK
Ash/dry weight:	98.23 %	QC type:	ANA
Sample description:	N/A		
Comment:	N/A		

**COUNTING INFORMATION**

Date and time	Duration (min)	Detector ID	Operator
06/23/2016 16:17	1000.0	AS38	RCL

**ANALYTICAL RESULTS**

Analyte	Activity	$\pm 2 \sigma$ Uncertainty	MDC	Unit	Reference Date
U234	3.53e-01	8.7e-02	3.2e-02	PCI/GDRY	06/23/2016 16:17 CDT
U235	2.04e-02	2.3e-02	2.6e-02	PCI/GDRY	06/23/2016 16:17 CDT
U238	4.44e-01	9.9e-02	3.0e-02	PCI/GDRY	06/23/2016 16:17 CDT

**U.S. ENVIRONMENTAL PROTECTION AGENCY  
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

**SDG #1600017**

**SAMPLE ANALYSIS REPORT**

Lab sample #:	B6.04150E	Amount analyzed:	9.574e-01 GASH
Client sample ID:	C3-SB14-0012-01	Preparation batch #:	0013481Q
Matrix:	SOIL	Assay batch #:	0020967L
Collected:	2016-04-06 12:28 EDT	Prep procedure:	N/A
Sample type:	SAM	Analysis method:	NAREL ACT-02F-U
Dry/wet weight:	97.41 %	Analyst:	SPK
Ash/dry weight:	91.39 %	QC type:	ANA
Sample description:	N/A		
Comment:	N/A		

**COUNTING INFORMATION**

Date and time	Duration (min)	Detector ID	Operator
06/23/2016 16:17	1000.0	AS40	RCL

**ANALYTICAL RESULTS**

Analyte	Activity	$\pm 2 \sigma$ Uncertainty	MDC	Unit	Reference Date
U234	3.95e-01	8.9e-02	2.9e-02	PCI/GDRY	06/23/2016 16:17 CDT
U235	4.33e-02	3.2e-02	3.2e-02	PCI/GDRY	06/23/2016 16:17 CDT
U238	4.36e-01	9.4e-02	3.1e-02	PCI/GDRY	06/23/2016 16:17 CDT

**U.S. ENVIRONMENTAL PROTECTION AGENCY  
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

**SDG #1600017**

**SAMPLE ANALYSIS REPORT**

Lab sample #:	B6.04151F	Amount analyzed:	9.994e-01 GASH
Client sample ID:	C3-SB15-0012-01	Preparation batch #:	0013481Q
Matrix:	SOIL	Assay batch #:	0020967L
Collected:	2016-04-06 10:43 EDT	Prep procedure:	N/A
Sample type:	SAM	Analysis method:	NAREL ACT-02F-U
Dry/wet weight:	85.96 %	Analyst:	SPK
Ash/dry weight:	95.51 %	QC type:	ANA
Sample description:	N/A		
Comment:	N/A		

**COUNTING INFORMATION**

Date and time	Duration (min)	Detector ID	Operator
06/23/2016 16:17	1000.0	AS65	RCL

**ANALYTICAL RESULTS**

Analyte	Activity	$\pm 2 \sigma$ Uncertainty	MDC	Unit	Reference Date
U234	5.28e-01	1.0e-01	4.6e-02	PCI/GDRY	06/23/2016 16:17 CDT
U235	2.94e-02	2.9e-02	4.2e-02	PCI/GDRY	06/23/2016 16:17 CDT
U238	6.03e-01	1.1e-01	4.2e-02	PCI/GDRY	06/23/2016 16:17 CDT

**U.S. ENVIRONMENTAL PROTECTION AGENCY  
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

**SDG #1600017**

**SAMPLE ANALYSIS REPORT**

Lab sample #:	B6.04152G	Amount analyzed:	1.011e+00 GASH
Client sample ID:	C3-SB15-2436-01	Preparation batch #:	0013481Q
Matrix:	SOIL	Assay batch #:	0020967L
Collected:	2016-04-06 10:43 EDT	Prep procedure:	N/A
Sample type:	SAM	Analysis method:	NAREL ACT-02F-U
Dry/wet weight:	91.97 %	Analyst:	SPK
Ash/dry weight:	98.05 %	QC type:	ANA
Sample description:	N/A		
Comment:	N/A		

**COUNTING INFORMATION**

Date and time	Duration (min)	Detector ID	Operator
06/23/2016 16:17	1000.0	AS66	RCL

**ANALYTICAL RESULTS**

Analyte	Activity	$\pm 2 \sigma$ Uncertainty	MDC	Unit	Reference Date
U234	5.15e-01	1.1e-01	3.2e-02	PCI/GDRY	06/23/2016 16:17 CDT
U235	2.69e-02	2.6e-02	2.9e-02	PCI/GDRY	06/23/2016 16:17 CDT
U238	4.63e-01	9.8e-02	2.4e-02	PCI/GDRY	06/23/2016 16:17 CDT

**U.S. ENVIRONMENTAL PROTECTION AGENCY  
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

**SDG #1600017**

**SAMPLE ANALYSIS REPORT**

Lab sample #:	B6.04153H	Amount analyzed:	9.052e-01 GASH
Client sample ID:	C3-SB16-0012-01	Preparation batch #:	0013481Q
Matrix:	SOIL	Assay batch #:	0020967L
Collected:	2016-04-06 08:35 EDT	Prep procedure:	N/A
Sample type:	SAM	Analysis method:	NAREL ACT-02F-U
Dry/wet weight:	96.85 %	Analyst:	SPK
Ash/dry weight:	93.53 %	QC type:	ANA
Sample description:	N/A		
Comment:	N/A		

**COUNTING INFORMATION**

Date and time	Duration (min)	Detector ID	Operator
06/23/2016 16:17	1000.0	AS68	RCL

**ANALYTICAL RESULTS**

Analyte	Activity	$\pm 2 \sigma$ Uncertainty	MDC	Unit	Reference Date
U234	4.90e-01	1.0e-01	3.1e-02	PCI/GDRY	06/23/2016 16:17 CDT
U235	3.12e-03	1.4e-02	2.8e-02	PCI/GDRY	06/23/2016 16:17 CDT
U238	4.84e-01	9.9e-02	2.9e-02	PCI/GDRY	06/23/2016 16:17 CDT

**U.S. ENVIRONMENTAL PROTECTION AGENCY  
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**SDG #1600017**

**SAMPLE ANALYSIS REPORT**

Lab sample #:	B6.04154J	Amount analyzed:	1.005e+00 GASH
Client sample ID:	C3-SB16-3648-01	Preparation batch #:	0013481Q
Matrix:	SOIL	Assay batch #:	0020967L
Collected:	2016-04-06 08:36 EDT	Prep procedure:	N/A
Sample type:	SAM	Analysis method:	NAREL ACT-02F-U
Dry/wet weight:	88.04 %	Analyst:	SPK
Ash/dry weight:	97.34 %	QC type:	ANA
Sample description:	N/A		
Comment:	N/A		

**COUNTING INFORMATION**

Date and time	Duration (min)	Detector ID	Operator
06/23/2016 16:17	1000.0	AS69	RCL

**ANALYTICAL RESULTS**

Analyte	Activity	$\pm 2 \sigma$ Uncertainty	MDC	Unit	Reference Date
U234	5.87e-01	1.3e-01	2.6e-02	PCI/GDRY	06/23/2016 16:17 CDT
U235	1.67e-02	2.6e-02	3.9e-02	PCI/GDRY	06/23/2016 16:17 CDT
U238	5.07e-01	1.2e-01	3.2e-02	PCI/GDRY	06/23/2016 16:17 CDT

**U.S. ENVIRONMENTAL PROTECTION AGENCY  
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**SDG #1600017**

**SAMPLE ANALYSIS REPORT**

Lab sample #:	LCS-00736021U	Amount analyzed:	1.000e+00 SAMP
Client sample ID:	N/A	Preparation batch #:	0013481Q
Matrix:	N/A	Assay batch #:	0020965J
Collected:	N/A	Prep procedure:	N/A
Sample type:	N/A	Analysis method:	NAREL ACT-02F-U
Dry/wet weight:	N/A	Analyst:	SPK
Ash/dry weight:	N/A	QC type:	LCS
Sample description:	N/A		
Comment:	N/A		

**COUNTING INFORMATION**

Date and time	Duration (min)	Detector ID	Operator
06/22/2016 17:06	1000.0	AS121	RCL

**ANALYTICAL RESULTS**

Analyte	Activity	$\pm 2 \sigma$ Uncertainty	MDC	Unit	Reference Date
U234	1.91e+00	2.3e-01	2.2e-02	PCI	06/22/2016 17:06 CDT
U235	8.48e-02	4.1e-02	2.1e-02	PCI	06/22/2016 17:06 CDT
U238	2.02e+00	2.4e-01	2.2e-02	PCI	06/22/2016 17:06 CDT

**U.S. ENVIRONMENTAL PROTECTION AGENCY  
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**SDG #1600017**

**SAMPLE ANALYSIS REPORT**

Lab sample #:	RBK-00736020T	Amount analyzed:	1.000e+00 SAMP
Client sample ID:	N/A	Preparation batch #:	0013481Q
Matrix:	N/A	Assay batch #:	0020965J
Collected:	N/A	Prep procedure:	N/A
Sample type:	N/A	Analysis method:	NAREL ACT-02F-U
Dry/wet weight:	N/A	Analyst:	SPK
Ash/dry weight:	N/A	QC type:	RBK
Sample description:	N/A		
Comment:	N/A		

**COUNTING INFORMATION**

Date and time	Duration (min)	Detector ID	Operator
06/22/2016 17:06	1000.0	AS122	RCL

**ANALYTICAL RESULTS**

Analyte	Activity	$\pm 2 \sigma$ Uncertainty	MDC	Unit	Reference Date
U234	2.01e-02	2.0e-02	2.5e-02	PCI	06/22/2016 17:06 CDT
U235	1.33e-03	1.2e-02	2.8e-02	PCI	06/22/2016 17:06 CDT
U238	1.78e-02	1.8e-02	2.3e-02	PCI	06/22/2016 17:06 CDT

**U.S. ENVIRONMENTAL PROTECTION AGENCY  
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

**SDG 1600017**

**PREPARATION BATCH SUMMARY**

Preparation batch #: 0013481Q  
 Analysis method: NAREL ACT-02F-U  
 Preparation procedure: N/A

NAREL Sample #	Client Sample ID	Analysis #	QC Type	Yield	$\pm 2\sigma$ Uncertainty	Analyst
B6.04138J	C3-SB9-0012-01	00733734J		87.35 %	7.71 %	SPK
B6.04139K	C3-SB9-1224-01	00733737M		82.61 %	6.94 %	SPK
B6.04140C	C3-SB10-0012-01	00733740G		84.17 %	7.02 %	SPK
B6.04141D	C3-SB10-1224-01	00733743K		80.77 %	6.76 %	SPK
B6.04142E	C3-SB10-6072-01	00733746N		80.38 %	6.88 %	SPK
B6.04142E	C3-SB10-6072-01	00736019A	DUP	78.40 %	6.65 %	SPK
B6.04143F	C3-SB10-7284-01	00733749R		78.53 %	6.67 %	SPK
B6.04144G	C3-SB10-8496-01	00733752L		75.55 %	6.43 %	SPK
B6.04145H	C3-SB11-0012-01	00733755P		70.62 %	6.56 %	SPK
B6.04146J	C3-SB11-3648-01	00733758T		58.86 %	5.83 %	SPK
B6.04147K	C3-SB12-0012-01	00733761M		80.51 %	7.06 %	SPK
B6.04148L	C3-SB13-0012-01	00733764Q		56.08 %	5.62 %	SPK
B6.04149M	C3-SB13-1224-01	00733767U		64.43 %	6.23 %	SPK
B6.04150E	C3-SB14-0012-01	00733770N		65.22 %	6.12 %	SPK
B6.04151F	C3-SB15-0012-01	00733773R		71.37 %	6.59 %	SPK
B6.04152G	C3-SB15-2436-01	00733776V		70.31 %	6.61 %	SPK
B6.04153H	C3-SB16-0012-01	00733779Y		74.54 %	6.78 %	SPK
B6.04154J	C3-SB16-3648-01	00733782T		51.65 %	5.32 %	SPK
LCS-00736021U *		00736021U	LCS	80.74 %	7.26 %	SPK
RBK-00736020T *		00736020T	RBK	83.22 %	7.36 %	SPK

\* Samples marked with an asterisk are not in this sample delivery group but were analyzed with it for QC purposes.

**QC RESULTS FOR BATCH 0013481Q**

NAREL Sample #	Analysis #	QC Type	Analyte	%R	RPD	Z	Evaluation
B6.04142E	00736019A	DUP	U234		2.8	0.31	PASS
B6.04142E	00736019A	DUP	U235		25.2	-0.74	PASS
B6.04142E	00736019A	DUP	U238		1.4	-0.15	PASS
LCS-00736021U	00736021U	LCS	U234	95.8		-0.70	PASS
LCS-00736021U	00736021U	LCS	U235	90.4		-0.44	PASS
LCS-00736021U	00736021U	LCS	U238	99.4		-0.10	PASS
RBK-00736020T	00736020T	RBK	U234				PASS
RBK-00736020T	00736020T	RBK	U235				PASS
RBK-00736020T	00736020T	RBK	U238				PASS